

## REMARKS

The Examiner rejected claims 2 and 9 under 35 U.S.C. § 103(a) as being unpatentable over Takao et al. (U.S. Patent No. 5,920,220) (“Takao”) in view of the admitted prior art of the present application (“the APA”); rejected claims 3 and 10 under 35 U.S.C. § 103(a) as being unpatentable over Takao in view of the APA and further in view of Touzni et al. (U.S. Patent No. 7,031,405) (“Touzni”); objected to claims 4-7 and 11-14 as being dependent upon a rejected base claim.

Claims 2-7 and 9-14 are pending in the application.

### Rejection of Claims 2 and 9 under 35 U.S.C. § 103(a)

The Examiner rejected claims 2 and 9 under 35 U.S.C. § 103(a) as being unpatentable over Takao in view of the APA.

Applicant maintains that claims 2 and 9 are not rendered obvious by Takao and the APA for all of the reasons set forth in the response dated April 6, 2009.

In the outstanding Office Action, the Examiner responds:

The claim limitation recites “means for deriving quadrature component signals and a symbol clock from the modulated signal; means for generating a sample clock having . . .” The Examiner interprets this limitation as “deriving quadrature component signals and a symbol clock from the modulated signal; generating a sample clock having . . .” since there is no Disclosure or Insufficient Disclosure of the Structure, Material, or Acts for Performing the Function Recited in a Claim Limitation Invoking 35 U.S.C. 112, Sixth Paragraph. However, the written description fails to disclose the corresponding structure, material, or acts for the claimed function. (Office Action, page 5, emphasis in original)

Applicant is puzzled by the Examiner’s response for several reasons:

First, Applicant is puzzled by the Examiner’s assertion that the written disclosure fails to disclose the structure, material, or acts for performing the claimed function because the specification is replete with structure, material, or acts. Applicant refers the Examiner to page 10, line 24 – page 11, line 18 and Figure 15 where it is readily apparent that the “means for deriving quadrature component signals and a symbol clock from the modulated signal” is performed by down converter 12, bandpass filter 14, demodulators 16 and 22, carrier recovery circuit 18, 90° phase shifter 20, lowpass filters 24 and 26, and symbol timing recovery circuit 28, and the “means for generating a sample clock having . . .” is performed by delay module 30.

Second, Applicant is puzzled by the fact that the Examiner interprets Applicant's claim limitations in means-plus-function form to be steps of a method claim. Even if the written description did not disclose the structure, material, or acts for performing the claimed function, interpreting a means claim to be a method claim is entirely improper because there is no legal basis for such an interpretation. If a means claim is not supported by sufficient disclosure, then the proper course of action is a rejection under 35 U.S.C. § 112 ¶ 1 and/or ¶ 2. See MPEP § 2181. If the Examiner maintains the position that it is proper to interpret a means claim to be a method claim, Applicant respectfully requests that the Examiner cite legal authority to support his position.

In response to Applicant's argument that Takao's A/D converters 2 and 3 cannot describe both part of the "means for deriving . . ." and the "means for sampling . . .," the Examiner responds:

The claim limitation does not limit "**deriving a symbol clock** and **generating a symbol clock**" to be two different circuits without overlapping or feedback. (Office Action, page 5, emphasis in original)

Applicant respectfully disagrees. During patent examination, pending claims must be "given their broadest reasonable interpretation . . ." See MPEP § 2111, citing *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (emphasis added). The Examiner's interpretation of claims 2 and 9 is unreasonable because it is contrary to the well-known canon of claim construction that a claim should not to be construed so as to render a claim limitation to be superfluous or redundant. See § 4.03[E][4] of "Patent Claim Construction," Robert C. Kahrl, Aspen Publishers, 2009 Supplement, and in particular the discussion regarding *Elekta Instrument S.A. v. O.U.R. Scientific International, Inc.*, 214 F.3d 1302 (Fed. Cir. 2000) (rejecting a claim construction that renders a claim limitation to be "superfluous") and *Unique Concepts, Inc. v. Brown*, 939 F.2d 1558 (Fed. Cir. 1991) (rejecting a claim construction that renders a claim limitation to be "redundant"). Specifically, in applying claims 2 and 9 to Takao, the Examiner construes the claim limitation "means for sampling the quadrature component signals with the sample clock to produce pseudo-symbols . . ." to be superfluous and redundant as follows: First, the Examiner asserts that Takao describes "means for deriving . . . a symbol clock from the modulated signal" where Takao generates the signal t0 from the IF input signal "via elements 1, 2, 3, 123, 124, 32f, and 7." (Office Action, page 5) Note that during the process of generating t0

from the IF input signal, A/D converters 2 and 3 must sample the output signals of the quadrature detector 1 to generate the I and Q signals. Then, the Examiner asserts that Takao describes “means for sampling the quadrature component signals with the sample clock to produce pseudo-symbols . . .” where A/D converters 2 and 3 sample the outputs of the quadrature detector 1 to generate the I and Q signals. However, recall that the A/D converters 2 and 3 *already* sampled the output signals of the quadrature detector 1 to generate the I and Q signals in the “means for deriving . . . a symbol clock from the modulated signal.” Thus, the Examiner’s construction of claims 2 and 9 unreasonably renders the claim limitation “means for sampling the quadrature component signals with the sample clock to produce pseudo-symbols . . .” to be superfluous and redundant. If the Examiner maintains the position that his interpretation of claims 2 and 9 is proper in spite of the above-mentioned canon of claim construction, Applicant respectfully requests that the Examiner cite legal authority to support his position.

For this reason and all the other reasons set forth in Applicant’s previous responses, Applicant reiterates that no combination of Takao and the APA describes Applicant’s claimed invention. Accordingly, Applicant requests that the rejection of claims 2 and 9 under 35 U.S.C. § 103(a) be withdrawn.

#### Rejection of Claims 3 and 10 under 35 U.S.C. § 103(a)

The Examiner rejected claims 3 and 10 under 35 U.S.C. § 103(a) as being unpatentable over Takao in view of the APA and further in view of Touzni.

Claims 3 and 10 are allowable because they depend from claims 2 and 9 respectively, both of which are allowable for the reasons discussed above. Furthermore, the addition of Touzni does not remedy any of the deficiencies of the Examiner’s proposed combination regarding claims 2 and 9 discussed above.

For these reasons, claims 3 and 10 are not rendered obvious by Takao in view of the APA and further in view of Touzni. Accordingly, Applicant requests that the rejection of claims 3 and 10 under 35 U.S.C. § 103(a) be withdrawn.

#### Objection to Claims 4-7 and 11-14

The Examiner objected to claims 4-7 and 11-14 as being dependent upon a rejected base claim, but indicated that they would be allowable if rewritten into independent form including all

of the limitations of the base claim and any intervening claims. Applicant notes that in the text of the Final Rejection, the Examiner only indicated that claims 4-7 were objected to, not claims 11-14. However, Applicant believes that the Examiner intended to indicate that claims 11-14 are also objected to because they are not rejected in the text of the Final Rejection and the Office Action Summary indicates that they are objected to.

Claims 4-7 and 11-14 are allowable in their present form because they depend from claims 2 and 9 respectively, both of which are allowable for the reasons discussed above. Accordingly, Applicant requests that the objection to claims 4-7 and 11-14 be withdrawn.

Conclusion

In view of the foregoing remarks, allowance of claims 2-7 and 9-14 is urged, and such action and the issuance of this case are requested.

Respectfully submitted,  
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